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INEEL OU 1-10 Site TSF-09, Sand Filter Preliminary Sand Filter Chemical Characterization Summary

- The solid phase of the waste associated with the concrete sand filter is considered a non-wastewater for purposes of complying with the Land Disposal Restrictions. This determination as well as the hazardous waste determination listed below is preliminary based on existing analytical data.
- Hazardous Waste Determination: Highest concentrations detected are reported.

The RCRA Waste codes that apply to this waste are as follows:

Constituent	Concentration Detected in Waste (mg/kg)	Regulatory Limit (mg/L)	Applicable Waste Code	LDR Treatment Standard for non- wastewater (mg/kg)
Cadmium	121 mg/kg or 0.3853 mg/L TCLP	1.0	UHC	0.11 mg/L
Hexachlorobutadiene	0.1 mg/L TCLP	0.5	UHC	No total data to use to determine if UHC
Trichloroethene	0.005 mg/L TCLP	0.5mg/L as a D040, None if F-listed, or 6 as a UHC	F001	6
Total PCB Concentration	290.0	50 mg/kg for TSCA and UHC Treatment Standard	TSCA Regulated and UHC	< 50 for TSCA and 10 for RCRA
UHCs (various)	See attached table		ations detected eatment standar	for the sand filter and ds.

- **UHC** = Underlying Hazardous Constituent.
- The inorganic analysis performed on this waste was reported in a total concentration (mg/kg) and in a TCLP extract concentration (mg/L). Although high total concentrations are reported in this waste for many of the inorganics, the TCLP extract concentrations were below regulatory limits as a characteristic.
- The detection limits for all the VOCs were below the non-wastewater treatment standards. In addition, the TCLP results for the characteristic constituents were

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below the regulatory limit; therefore, none of the VOCs are characteristic nor are any identified as underlying hazardous constituents.

- The detection limits for a majority of the SVOCs were above the non-wastewater treatment standards but results for TCLP were below characteristic regulatory limits. Again as previously stated, LDR guidance suggests that in cases where detection limits are above either the characteristic limit or the treatment standard, the generator may use his/her knowledge of the waste, in lieu of analytical results, to certify that these constituents are not present in the waste. However, since this waste will not be reanalyzed for these constituents the following SVOCs are also assumed to be present in the waste as underlying hazardous constituents at the detection limit value (see attached tables for concentrations) and identified as underlying hazardous constituents: Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,l)perylene, Benzo(k)fluoranthene, Butylbenzylphthalate, Bis (2-chloroethoxy) methane, Bis (2-chloroethyl) ether, Bis (2chloroisopropyl) ether, Bis(2-ethlyexyl)phthalate, 4-Bromophenyl-phenylether, Chrysene, 4-Chloroaniline, 4-Chloro-3-Methylphenol, 2-Chloronaphthalene, 2-Chlorophenol, Dibenz(a,h)anthracene, 1,2-Dichlorobezene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 3,3-Dichlorobenzidiene, 2,4-Dichlorophenol, Diethylphthalate, 2,4-Dichlorophenol, Dimethylphthalate, Di-n-butylphthalate, Di-n-octylphthalate, 2,4-Dinitrophenol, 2,4-Dinitrotoluene, 2,6-Dinitrotoluene, Fluoranthene, Fluorene, Hexachlorobenzene, Hexachlorobutadiene, Hexachlorocyclopentadiene, Hexachloroethane, Indeno(1,2,3-cd)pyrene,2-Methylphenol, 4-Methylphenol, Napthalene, 2-Nitroaniline, 4-Nitroaniline, Nitrobenzene, 2-Nitrophenol, 4-Nitrophenol, N-nitroso-dimethylamine, N-nitroso-di-n-propylamine, Nnitrosodiphenylamine, Pentachlorophenol, Phenanthrene, Phenol, Pyrene, Pyridine, 2,4,5-Trichlorophenol, and 2,4,6-Trichlorophenol.
- Based on a review of the analytical data provided by INEEL, this waste is considered
 a listed hazardous waste with underlying hazardous constituents as well as TSCA
 regulated due to the presence of PCBs > 50 ppm. This waste requires incineration
 based on 40 CFR 761 for the presence of PCBs and any form of thermal treatment for
 the presence of the organic constituents, followed-by stabilization of the ash for the
 inorganic constituents.
- **Recommendation:** The physical form or phase of the waste to be treated and/or disposed should be the same form or phase as described above.

	<u> </u>			1	LDR	
				LDR	Treatment	•
				Treatment	Standard for	
		Applicable	Applicable	Standard for	1	
	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	
Constituents	mg/kg	Limit	Code		1	Comments
Constituents	ilig/kg	UHC Treatment	Code	in mg/l	in mg/kg	Comments
Acenaphthene	U (55)	Standard	UHC	0.050	3.4	55 mg/kg detection limit exceeds the nww
Acertapritrierie	0 (55)	UHC Treatment	UNC	0.059	3.4	treatment standard.
Acenaphthylene	11/55)	Standard	UHC	0.050	,,	55 mg/kg detection limit exceeds the nww
Acenaphinylene	U (55)	UHC Treatment	Unc	0.059	3.4	treatment standard.
Anthracene	11 (55)		11110	0.050		55 mg/kg detection limit exceeds the nww
Anunacene	U (55)	Standard	UHC	0.059	3.4	treatment standard.
Bonzo (a) anthropona	11 (55)	UHC Treatment	1410	0.050		55 mg/kg detection limit exceeds the nww
Benzo (a) anthracene	U (55)	Standard	UHC	0.059	3.4	treatment standard.
		UHC Treatment				55 mg/kg detection limit exceeds the nww
Benzo (a) pyrene	U (55)	Standard	UHC	0.061	3.4	treatment standard.
		UHC Treatment				55 mg/kg detection limit exceeds the nww
Benzo (b) fluoranthene	U (55)	Standard	UHC	0.11	6.8	treatment standard.
		UHC Treatment				55 mg/kg detection limit exceeds the nww
Benzo (g,h,l) perylene	U (55)	Standard	UHC	0.0055	1.8	treatment standard.
		UHC Treatment				55 mg/kg detection limit exceeds the nww
Benzo (k) fluoranthene	U (55)	Standard	UHC	0.11	6.8	treatment standard.
Benzoic acid	U (13)	None	NA	NA	NA	
Benzly alcohol	U(55)	None	NA NA	NA	NA	
		UHC Treatment				55 mg/kg detection limit exceeds the nww
Butylbenzylphthalate	U (55)	Standard	UHC	0.017	28	treatment standard.
Bis (2-		UHC Treatment				55 mg/kg detection limit exceeds the nww
chloroethoxy)methane	U (55)	Standard	UHC	0.036	7.2	treatment standard.
		UHC Treatment				55 mg/kg detection limit exceeds the nww
Bis (2-chloroethyl)ether	U (55)	Standard	UHC	0.033	6	treatment standard.
		UHC Treatment				55 mg/kg detection limit exceeds the nww
Bis (2-chloroisopropyl) ether	U (55)	Standard	UHC	0.055	7.2	treatment standard.

J = Estimated Value

					LDR	
			,	LDR	Treatment	
i				Treatment	Standard for	
,		Applicable	Applicable	Standard for	non-	
	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	
Constituents	mg/kg	Limit	Code	in mg/l	in mg/kg	Comments
		UHC Treatment				110 mg/kg concentration exceeds the nww
Bis (2-ethylhexyl) phthalate	U(110)	Standard	UHC	0.28	28	treatment standard.
		UHC Treatment				55 mg/kg detection limit exceeds the nww
4-Bromophenyl-phenylether	U (55)	Standard	UHC	0.055	15	treatment standard.
Carbozole (or Carbazole)	U (55)	None	· NA	NA	NA	
		UHC Treatment				55 mg/kg detection limit exceeds the nww
Chrysene	U (55)	Standard	UHC	0.059	3.4	treatment standard.
4-Chloroaniline (p-		UHC Treatment				55 mg/kg detection limit exceeds the nww
chloroaniline)	U (55)	Standard	UHC	0.46	16	treatment standard.
4-Chloro-3-Methylphenol (p-		UHC Treatment				55 mg/kg detection limit exceeds the nww
chloro-m-cresol)	U (55)	Standard	UHC	0.018	14	treatment standard.
		UHC Treatment				55 mg/kg detection limit exceeds the nww
2-Chloronaphthalene	U (55)	Standard	UHC	0.055	5.6	treatment standard.
4-Chlorophenyl-phenylether	U (55)	None	NA	NA	NA	
		UHC Treatment				55 mg/kg detection limit exceeds the nww
2-Chlorophenol	U (55)	Standard	UHC	0.044	5.7	treatment standard.
		UHC Treatment				55 mg/kg detection limit exceeds the nww
Dibenz(a,h)anthracene	U (55)	Standard	UHC	0.055	8.2	treatment standard.
Dibenzofuran	U (130)	None	NA	NA	NA	
1,2-Dichlorobenzene (o-		UHC Treatment				55 mg/kg concentration exceeds the nww
dichlorobenzene)	U (55)	Standard	UHC	0.088	6	treatment standard.
1,3-Dichlorobenzene (m-		UHC Treatment				55 mg/kg concentration exceeds the nww
dichlorobenzene)	U (55)	Standard	UHC	0.036	6	treatment standard.

J = Estimated Value

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Ĭ				LDR	Treatment	
				Treatment	Standard for	
1	ŀ	Amaliaabla	A			
		Applicable	Applicable	Standard for	ľ	
	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	_ ,
Constituents	mg/kg	Limit	Code	in mg/l	in mg/kg	Comments
	11/55	7 5 (0007) 11110				0.1 mg/l dags not average the characteristic
4.4 Dishlarahannana (n	U (55)	7.5 (D027), UHC		ļ		0.1 mg/L does not exceed the characteristic
1,4-Dichlorobenzene (p-	U(0.1 mg/L)	Treatment	D007 11110	0.00		limit. 55 mg/kg concentration exceeds the
dichlorobenzene)	TCLP	Standard	D027, UHC	0.09	6	nww treatment standard.
3,3-Dichlorobenzidine		UHC Treatment				55 mg/kg detection limit exceeds the nww
(Dibenz (a,h) anthracene)	U (55)	Standard	UHC	0.055	8.2	treatment standard.
ŀ		UHC Treatment				55 mg/kg detection limit exceeds the nww
2,4-Dichlorophenol	U (55)	Standard	UHC	0.044	14	treatment standard.
		UHC Treatment				55 mg/kg detection limit exceeds the nww
Diethylphthalate	U (55)	Standard	UHC	0.2	28	treatment standard.
		UHC Treatment				64 mg/kg concentration does exceed the
2,4-Dimethylphenol	64	Standard	UHC	0.036	14	nww treatment standard.
		UHC Treatment				55 mg/kg detection limit exceeds the nww
Dimethylphthalate	U (55)	Standard	UHC	0.047	28	treatment standard.
	•	UHC Treatment				55 mg/kg concentration exceeds the nww
Di-n-butylphthalate	U (55)	Standard	UHC	0.057	28	treatment standard.
	,	UHC Treatment				55 mg/kg detection limit exceeds the nww
Di-n-octylphthalate	U (55)	Standard	UHC	0.017	28	treatment standard.
4,6-Dinitro-2-methylphenol	U (270)	None	NA	NA	NA	
	, , ,	UHC Treatment				270 mg/kg detection limit exceeds the nww
2,4-Dinitrophenol	U (270)	Standard	UHC	0.12	160	treatment standard.
	, ,					
	U (55)	0.13 (D030)UHC		i		0.1 mg/L does not exceed the characteristic
	U(0.1mg/L)	Treatment				limit. 55 mg/kg detection limit does not
2,4-Dinitrotoluene	TCLP	Standard	UHC	0.32	140	exceed the nww treatment standard.
		UHC Treatment				55 mg/kg detection limit exceeds the nww
2,6-Dinitrotoluene	U (55)	Standard	UHC	0.55	28	treatment standard.
2,0-Diriii 010iuene	U (33)	Statitualu	0110	0.00	20	u eaunem stanuaru.

U = Not Detected (Detection limit in parenthesis).

J = Estimated Value

					LDR	
				LDR	Treatment	
				Treatment	Standard for	
		Applicable	Applicable	Standard for	non-	
	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	
Constituents	mg/kg	Limit	Code	in mg/l	in mg/kg	Comments
		UHC Treatment				55 mg/kg detection limit exceeds the nww
Fluoranthene	U (55)	Standard	UHC	0.068	3.4	treatment standard.
		UHC Treatment				55 mg/kg detection limit exceeds the nww
Fluorene	U (55)	Standard	UHC	0.059	3.4	treatment standard.
1	U (55)	0.13 (D032),				0.1 mg/L does not exceed the characteristic
	U(0.1mg/L)	UHC Treatment				limit. 55 mg/kg detection limit exceeds the
Hexachlorobenzene	TCLP	Standard	D032, UHC	0.055	10	nww treatment standard.
				ļ		
<u> </u>		(5.000)				0.1 mg/L does not exceed the characteristic
		0.5 (D033)UHC				limit. 55 mg/kg detection limit exceeds the
Hexachlorobutadiene	U(0.1mg/L)	Treatment				nww treatment standard. There is no total
(Hexachloro-1,3-butadiene	TCLP	Standard	D033, UHC	0.055	5.6	data to use to determine if a UHC.
1	11 (55)	UHC Treatment		0.057		55 mg/kg detection limit exceeds the nww
Hexachlorocyclopentadiene	U (55)	Standard	UHC	0.057	2.4	treatment standard.
	11 (55)	2.0 (D024)				
	U (55)	3.0 (D034)				0.1 mg/L does not exceed the characteristic
Hexachloroethane	U(0.1mg/L) TCLP	UHC Treatment Standard	UHC	0.055	30	limit. 55 mg/kg detection limit exceeds the nww treatment standard.
nexachioroethane	ICLP	UHC Treatment	UNC	0.055	30	55 mg/kg detection limit exceeds the nww
Indeno (1,2,3-cd) pyrene	U (55)	Standard	UHC	0.0055	3.4	treatment standard.
Isophorone	U (55)	None	NA NA	0.0055 NA	NA	treatment standard.
2-Methylnaphthalene	U (55)	None	NA NA	NA NA	NA NA	
2 Modifymaphalaiche	0 (00)	140110	1473	14/4	14/5	
· · · ·	J (54)	200 (D023)				0.1 mg/L does not exceed the characteristic
	U(0.1mg/L)	UHC treatment				limit. 54 mg/kg concentration exceeds the
2-Methylphenol (o-cresol)	TCLP	standard	D023, UHC	0.11	5.6	nww treatment standard.

U = Not Detected (Detection limit in parenthesis).

J = Estimated Value

				T	LDR	
				LDR	Treatment	
				Treatment	Standard for	
		Applicable	Applicable	Standard for		
	Concentration		RCRA Waste	wastewater	wastewater	•
0 4'4 4 -		Regulatory				0
Constituents	mg/kg	Limit	Code	in mg/l	in mg/kg	Comments
	U (53)	200 (D025) or				0.1 mg/L does not exceed the characteristic
	U(0.1mg/L)	UHC treatment				limit. 53 mg/kg concentration exceeds the
4 Mathylphonal (p. gracel)	TCLP	standard	DOSE LINC	0.77	5.6	nww treatment standard.
4-Methylphenol (p-cresol)	TOLP	UHC Treatment	D025, UHC	0.77	0.0	54 mg/kg concentration exceeds the nww
Nonbéholona	11/54	Standard	UHC	0.059	5.6	treatment standard.
Naphthalene	U (54)	UHC Treatment	Unc	0.059	5.0	
O Nikas amilina (a mikas amilina)	11 (070)			0.07	4.4	270 mg/kg detection limit exceeds the nww
2-Nitroaniline (o-nitroaniline)	U (270)	Standard	UHC	0.27	14	treatment standard.
3-Nitroaniline (m-						
nitroaniline)	U (270)	None	NA	NA	NA	
		UHC Treatment				270 mg/kg detection limit exceeds the nww
4-Nitroaniline (p-nitroaniline)	U (270)	Standard	UHC	0.028	28	treatment standard.
	U (55)	2.0 (D036) or				0.1 mg/L does not exceed the characteristic
	U(0.1mg/L)	UHC Treatment				limit. 55 mg/kg detection limit exceeds the
Nitrobenzene	TCLP	Standard	D036 or UHC	0.068	14	nww treatment standard.
2-Nitrophenol (o-		UHC Treatment				55 mg/kg detection limit exceeds the nww
nitrophenol)	U (55)	Standard	UHC	0.028	13	treatment standard.
4-Nitrophenol (p-		UHC Treatment				270 mg/kg detection limit exceeds the nww
nitrophenol)	U (270)	Standard	UHC	0.12	29	treatment standard.
		UHC Treatment				
N-nitroso-dimethylamine	NA	Standard	UHC	0.4	2.3	
N-nitroso-di-n-propylamine		UHC Treatment				55 mg/kg detection limit exceeds the nww
(Di-n-propylnitrosamine)	U (55)	Standard	UHC	0.4	14	treatment standard.
N-nitrosodiphenylamine		UHC Treatment				55 mg/kg detection limit exceeds the nww
(Diphenylnitrosamine)	U (55)	Standard	UHC	0.92	13	treatment standard.

U = Not Detected (Detection limit in parenthesis).

J = Estimated Value

	I				LDR	
	•			LDR	Treatment	
				Treatment	Standard for	·
		Applicable	Applicable	Standard for	non-	
	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	
Constituents	mg/kg	Limit	Code	in mg/l	in mg/kg	Comments
	11 (070)	, a a (= a a =)				
	U (270)	100 (D037)				0.5 mg/L does not exceed the characteristic
	U(0.5 mg/L)	UHC Treatment				limit. 270 mg/kg detection limit exceeds the
Pentachlorophenol	TCLP	Standard	D037, UHC	0.089	7.4	nww treatment standard.
		UHC Treatment				55 mg/kg concentration exceeds the nww
Phenanthrene	U (55)	Standard	UHC	0.059	5.6	treatment standard.
		UHC Treatment				14 mg/kg concentration exceeds the nww
Phenol	14 J	Standard	UHC	0.039	6.2	treatment standard.
		UHC Treatment				55 mg/kg detection limit exceeds the nww
Pyrene	U (55)	Standard	UHC	0.067	8.2	treatment standard.
	U (55)	5.0 (D038)				0.1 mg/L does not exceed the characteristic
	U(0.1mg/L)	UHC Treatment		1	:	limit. 55 mg/kg detection limit exceeds the
Pyridine	TCLP	Standard	D038, UHC	0.014	16	nww treatment standard.
		UHC Treatment				55 mg/kg concentration exceeds the nww
1,2,4-Trichlorobenzene	U (55)	Standard	UHC	0.055	19	treatment standard.
····						
	U (270)	400 (D041),				0.5 mg/L does not exceed the characteristic
	U(0.5mg/L)	UHC Treatment				limit. 270 mg/kg detection limit exceeds the
2,4,5-Trichorophenol	TCLP	Standard	D041, UHC	0.18	7.4	nww treatment standard.
	U (55)	2 (D042), UHC				
	U(0.1mg/L)	Treatment				55 mg/kg detection limit exceeds the nww
2,4,6-Trichlorophenol	TCLP	Standard	D042, UHC	0.035	7.4	treatment standard.

U = Not Detected (Detection limit in parenthesis).

J = Estimated Value

INEEL Sand Filter VOC Analysis on Solid.

Constituents	Concentration mg/kg	Applicable Regulatory Limit	Applicable RCRA Waste Code	LDR Treatment Standard for wastewater in mg/L	LDR Treatment Standard for non- wastewater in mg/kg	Comments
Acetone	U (0.014)	UHC Treatment Standard	UHC	0.28	160	
Benzene	U (0.014) U (0.005 mg/L) TCLP	0.5 (D018), UHC Treatment Standard	D018, UHC	0.14	10	
Bromodichloromethane	U (0.014)	UHC Treatment Standard	D005, UHC	0.35	15	
Bromoform (Tribromomethane)	U (0.014)	UHC Treatment Standard	UHC	0.63	15	
Bromomethane	U (0.014)	UHC Treatment Standard	UHC	0.11	15	
2-Butanone (MEK)	U (0.014) U (0.01 mg/L) TCLP	200 (D035), UHC Treatment Standard	D035 or UHC	0.28	36	
Carbon disulfide	U (0.014)	UHC Treatment Standard	UHC	3.8	4.8 mg/L	
Carbon tetrachloride	U (0.014) U (0.005 mg/L) TCLP	0.5 (D019), UHC Treatment Standard	UHC	0.057	6	
Chlorobenzene	U (0.014) U (0.005 mg/L) TCLP	100 (D021), UHC Treatment Standard	D021 or UHC	0.057	6	
Chloroethane	U (0.014)	UHC Treatment Standard	UHC	0.27	6	
Chloroform	U (0.014) U (0.005 mg/L) TCLP	6 (D022), UHC Treatment Standard	D022 or UHC	0.046	6	

U = Not Detected (Detection limit in parenthesis).

J = Estimated Value

D = Dilution factor of 10000

INEEL Sand Filter VOC Analysis on Solid.

Constituents	Concentration mg/kg	Applicable Regulatory Limit	Applicable RCRA Waste Code	LDR Treatment Standard for wastewater in mg/L	LDR Treatment Standard for non- wastewater in mg/kg	Comments
Chloromethane	U (0.014)	UHC Treatment Standard	UHC	0.19	30	
Dibromochloromethane (Chlorodibromomethane)	U (0.014)	UHC Treatment Standard	UHC	0.057	15	
1,1-Dichloroethane	U (0.014)	UHC Treatment Standard	UHC	0.059	6	
1,2-Dichloroethane	U (0.014) U (0.005 mg/L) TCLP	0.5 (D028), UHC Treatment Standard	D028 or UHC	0.21	6	
1,1-Dichloroethene	U (0.005 mg/L) TCLP	0.7 (D029), UHC Treatment Standard	D029 or UHC	0.025	6	No totals analysis available to determine if UHC
cis-1,2-Dichloroethene	U (0.014)	NA	NA	NA	NA	
trans-1,2-Dichloroethene	U (0.014)	UHC Treatment Standard	UHC	0.054	30	
1,2-Dichloropropane	U (0.014)	UHC Treatment Standard	UHC	0.85	18	
cis-1,3-Dichloropropene	U (0.014)	UHC Treatment Standard	UHC	0.036	18	
trans-1,3- Dichloropropene	U (0.014)	UHC Treatment Standard	D011, UHC	0.036	18	
Ethylbenzene	U (0.014)	1 (D010) UHC Treatment Standard	UHC	0.057	10	
2-Hexanone (Methyl n- butyl ketone)	U (0.014)	NA	NA	NA	NA	

J = Estimated Value

D = Dilution factor of 10000

Sand Filter

INEEL Sand Filter VOC Analysis on Solid.

				LDR Treatment	LDR Treatment Standard for	
Constituents	Concentration mg/kg	Applicable Regulatory Limit	Applicable RCRA Waste Code	Standard for wastewater in mg/L		Comments
4-Methyl-2-pentanone (MIK)	U (0.014)	UHC Treatment Standard	UHC	0.14	33	
Methylene chloride	U (0.014)	UHC Treatment Standard	UHC	0.089	30	
Styrene	U (0.014)	NA	NA	NA	NA	
1,1,2,2- Tetrachloroethane	U (0.014)	UHC Treatment Standard	UHC	0.057	6	
Tetrachloroethene	J (0.002) J (0.001 mg/L) TCLP	0.7 (D039), UHC Treatment Standard	D039 or UHC	0.056	6	
Toluene	U (0.014)	UHC Treatment Standard	UHC	0.08	10	
1,1,1-Trichloroethane	U (0.014)	UHC Treatment Standard	UHC	0.054	6	
1,1,2-Trichloroethane	U (0.014)	UHC Treatment Standard	UHC	0.054	6	
Trichloroethene	U (0.014) U (0.005 mg/L) TCLP	None if listed	F001	0.054	6	
Vinyl chloride	U (0.014) U (0.005 mg/L) TCLP	0.2 (D043), UHC Treatment Standard	D043 or UHC	0.27	6	
Xylene (ortho)	U (0.014)	NA	NA	NA	NA	
Xylene (total meta and para)	U (0.014)	UHC Treatment Standard	UHC	0.32	30	·

J = Estimated Value

D = Dilution factor of 10000

INEEL Sand Filter Inorganic Analysis on Solid.

					LDR Treatment Standard for	
Constituents	Concentration mg/kg	Applicable Regulatory Limit	Applicable RCRA Waste Code	Standard for wastewater in mg/L	non- wastewater in mg/kg	Comments
Antimony		UHC Treatment Standard	UHC	1.9	1.15 mg/L TCLP	
Arsenic	25 U (0.0194 mg/L) TCLP	5.0 (D004), UHC Treatment Standard	D004, UHC	1.4	5.0 mg/L TCLP	TCLP result is below both the characteristic limit as well as nonwastewater (nnw) treatmen standard limit.
Barium	310 (0.1385 mg/L) TCLP	100 (D005), UHC Treatment Standard	D005, UHC	1.2	21 mg/L TCLP	TCLP result is below both the characteristic limit as well as nonwastewater (nnw) treatmen standard limit.
Beryllium		UHC Treatment Standard	UHC	0.82	1.22 mg/L TCLP	
Cadmium	121 (0.3853 mg/L) TCLP	1.0 (D006), UHC	UHC	0.69	0.11 mg/L	TCLP result is below the characteristic limit; however, it exceeds the nnw treatment standard limit.
Chromium	1985 (0.177 mg/L) TCLP	5 (D007), UHC Treatment Standard	D007, UHC	2.77	0.60 mg/L	TCLP result is below both the characteristic limit as well as nonwastewater (nnw) treatmer standard limit.
Lead	1349 (0.2196 mg/L) TCLP	5.0 (D008) UHC Treatment Standard	D008, UHC	0.69	0.75 mg/L TCLP	TCLP result is below both the characteristic limit as well as nonwastewater (nnw) treatmer standard limit.
Mercury	1930 (0.00733 mg/L) TCLP	0.2 (D009), UHC Treatment Standard	D009, UHC	0.15	0.025 mg/L TCLP	TCLP result is below both the characteristic limit as well as nonwastewater (nnw) treatmer standard limit.
Nickel		UHC Treatment Standard	UHC	3.98	11 mg/L TCLP	

U = Not Detected (Detection limit in parenthesis).

J = Estimated Value

B = Reported value is > to instrument detection limit but < contract required detection limit.

N = Spiked Sample

E = Estimate value due to interference.

INEEL Sand Filter Inorganic Analysis on Solid.

Constituents	Concentration mg/kg	Applicable Regulatory Limit	Applicable RCRA Waste Code	LDR Treatment Standard for wastewater in mg/L	LDR Treatment Standard for non- wastewater in mg/kg	Comments
Selenium	5.36 U (0.0402 mg/L) TCLP	1 (D010) UHC Treatment Standard	D010	0.82	5.7 mg/l	TCLP result is below both the characteristic limit as well as nonwastewater (nnw) treatment standard limit.
Silver	247 U (0.0045 mg/L) TCLP	5 (D011), UHC Treatment Standard	D011, UHC	0.43	0.14 mg/L TCLP	TCLP result is below both the characteristic limit as well as nonwastewater (nnw) treatment standard limit.
Thallium		UHC Treatment Standard	UHC	1.4	0.2 mg/L TCLP	

U = Not Detected (Detection limit in parenthesis).

J = Estimated Value

B = Reported value is > to instrument detection limit but < contract required detection limit.

N = Spiked Sample

E = Estimate value due to interference.

INEEL Sand Filter PCB Analysis on solids

					LDR	
	· .			LDR	Treatment	
		l	i E	Treatment	Standard for	
·		Applicable	Applicable	Standard for	non-	
	Concentration	Regulatory	TSCA/RCRA	wastewater	wastewater	
Constituents	mg/kg	Limit	Waste Code	in mg/L	in mg/kg	Comments
Aroclor-1016	U (14)		None	NA	NA	
Aroclor-1221	U (270)	NA	NA	NA	NA	
Aroclor-1232	U (14)	NA	NA	NA	NA	
Aroclor-1242	U (14)	NA	NA	NA	NA	
Aroclor-1248	U (14)	NA	NA	NA	NA	
Aroclor-1254	U (14)	NA	NA	NA	NA	
Aroclor-1260	290	NA	NA	NA	NA	
		50 mg/kg for				This waste is regulated under TSCA and it
		TSCA, UHC				may be subject to the UHC treatment standard
		Treatment				level. Therefore, this waste must be
		Standard for				incinerated prior to disposal for purposes of
Total Concentration	290	RCRA	None	0.1	10	PCBs.

U = Not Detected (Detection limit in parenthesis).
P = > 25% difference in detected concentration between two GC columns; lower value reported.